



PATENT APPLICATION  
Mo-6418  
MD-01-49-PU

AF/1711  
JFW

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICATION OF

JAN R. CLATTY

SERIAL NUMBER: 09/876,778

FILED: JUNE 7, 2001

TITLE: POLYURETHANE FOAMS HAVING  
IMPROVED HEAT SAG AND A  
PROCESS FOR THEIR  
PRODUCTION

) GROUP NO.: 1711

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) EXAMINER: J.M. COONEY

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**REPLY BRIEF**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

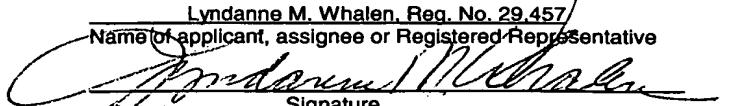
Sir:

The Examiner's Answer dated May 4, 2004 has been received and its contents noted. The following is in response thereto.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria VA 22313-1450 6/24/04

Date

Lyndanne M. Whalen, Reg. No. 29,457  
Name of applicant, assignee or Registered Representative

  
Signature

June 24, 2004

Date

## REMARKS

The Examiner has argued that the teachings of the Kurth reference alone are sufficient to support the rejection of Appellant's claims because that reference is specific as to the materials being avoided. (at page 4, lines 14-18 of the Examiner's Answer)

Appellant submits that even if one skilled in the art were to ignore the teachings of Kurth and include some petroleum-based polyester or polyether polyol, that skilled artisan would not know how much of such polyol to include.

Kurth contains **no** teaching which would lead one skilled in the art reading that reference to use the 0.5 to 30 wt% polyol based on vegetable oil, fish oil or oil derived from animal fat which is required in Appellant's claimed invention.

Further, Kurth teaches in the Examples presented therein that products made in accordance with its teachings from soy oil remained tacky for relatively long periods of time, were weak in tensile strength, had low density, etc. Such properties would clearly **not** be acceptable in reaction injection molding ("RIM") processes.

One skilled in the art could not possibly learn from such teachings or any other teachings in the Kurth reference how to modify the reference systems to get polyurethane-forming systems useful in a RIM process to produce rigid closed cell polyurethane foams with tensile strength, cure times, etc. better than those disclosed in the Kurth reference.

Absent teachings with respect to "appropriate" amounts, Kurth can not be construed in any manner which would render obvious Appellant's claimed invention.

The Examiner argued at page 4, lines 18-22 of his Answer that:

If one were not interested in obtaining the full ecological advantages associated with their preferred isocyanate reactive component, then they would have been *prima facie* motivated to use the recited other well-known conventional petrochemical isocyanate-reactive materials identified by Kurth for their property engineering effects described.

Appellant would first point out that Kurth "identifies" other known petrochemical isocyanate-reactive materials as materials to be avoided. Kurth **does not** identify them as possible components for the disclosed systems.

Further, even if one skilled in the art were motivated to use known isocyanate-reactive materials in addition to the soy oil disclosed by Kurth as maintained by the Examiner or for any other reason, that skilled artisan would have no way of predicting how much of such other materials should be used from the teachings of Kurth.

Appellant has shown in Examples 1-9 that addition of soy oil to an existing polyol component for a polyurethane-forming reaction mixture as an additional material in the polyol component offers **no advantage** over the system in which no soy oil was included. In fact, such a system would have the disadvantage of being more expensive without producing a product with any better properties.

Appellant has also shown in Examples 13-14 that 35% (Example 13) or 45% (Example 14) of polymerized soy oil was included in the isocyanate-reactive component, the tensile strength and flex modulus were significantly lower than when 15% (Example 11) or 25% (Example 12) polymerized soy oil was included.

Kurth does not include **any** teaching which would lead one skilled in the art to use a polyol component which includes (a) from 0.5 to 30% by weight of a polyol based on vegetable oil, fish oil or oil derived from animal fat and (b) from 5 to 80% by weight of a second isocyanate-reactive material (different from (a)) having a functionality of at least one and an average molecular weight of from 400 to 10,000.

The teachings of Kurth do not therefore render obvious Appellant's claimed invention which does require such a polyol component.

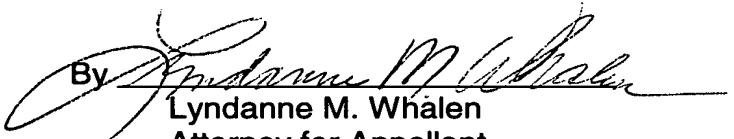
A rejection under 35 U.S.C. § 103 must have a factual basis.

Kurth does not provide the factual basis necessary to support a proper rejection of Appellant's claims under 35 U.S.C. § 103.

Withdrawal of this rejection is therefore requested.

For these reasons and those discussed in her Brief, Appellant continues to maintain that the Examiner's rejection of Claims 1-7 is in error and respectfully requests that this rejection be reversed.

Respectfully submitted,

By   
Lyndanne M. Whalen  
Attorney for Appellant  
Reg. No. 29,457

Bayer Polymers LLC  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
(412) 777-3843  
FACSIMILE PHONE NUMBER:  
(412) 777-3902  
s:\shared\kgb\lmw2507rb